

In re application of:

HU et al.

Appl. No.: 09/219,442

Filed: December 23, 1998

For: Vascular Endothelial Growth Factor 2 and Methods of Use

Confirmation No.: 4797

Art Unit: 1647

Examiner: Landsman, Robert S.

Atty. Docket: 1488.100000I/HCC/LMB

## Twelfth Supplemental Information Disclosure Statement Under 37 C.F.R. § 1.97(b)

Mail Stop Amendment

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

Listed on accompanying Forms PTO/SB/08A and PTO/SB/08B are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Twelfth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Eleventh Supplemental Information Disclosure Statement filed on February 3, 2006 in connection with the above-captioned application.

Copies of documents FP13-FP23 and NPL49-NPL83 are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), copies of U.S. patents, documents US14-US20, cited on the attached Form PTO/SB/08A are not submitted.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following discussion of the relevance of the non-English language documents **FP14** and **FP15** cited on Form PTO/SB/08A:

Document **FP14**, JP 64-38100 A, is in the Japanese language. An English language abstract of document FP14 is attached as document **NPL55**.

Document **FP15,** JP 2-117698 A, is in the Japanese language. An English language abstract of document FP15 is attached as document **NPL56.** 

Applicants would also like to bring to the attention of the Examiner that, for the following documents, the months of publication could not be determined to the best of the Applicants' ability: NPL72, Spranger, J. and Pfeiffer, A.F.H., "New concepts in pathogenesis and treatment of diabetic retinopathy," *Exp. Clin. Endocrinol. Diabetes* 109(Suppl. 2):S438-S450, J.A. Barth Verlag (2001); and NPL73, Stacker, S.A. and Achen, M.G., "The Vascular Endothelial Growth Factor Family: Signalling for Vascular Development," *Growth Factors* 17:1-11, Taylor & Francis (1999)

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Mblenillailen

Helene C. Carlson

Agent for Applicants

Registration No. 47,473

Date: March 14, 2006

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

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TWELFTH SUPPLEMENTAL INFORMATION DISCUSSION RESTATEMENT BY APPLICANT

Complete if Known

Application Number 09/219,442

Filing Date December 23, 1998

First Named Inventor Jing-Shan HU

Art Unit 1647

Examiner Name Landsman, Robert S.

Attorney Docket Number 1488.100000I/HCC/LMB

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|                                 | . · · ·                 | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>3</sup> (if known) |  |   | Relevant Passages or<br>Relevant Figures<br>Appear | T <sup>6</sup> |
|                                 | FP13                    | EP 0 186 084 A2   | 07/02/1986   | Merck & Co. Inc.                                |  |                |
|                                 | FP14                    | JP 64-38100 A   | 02/08/1989   | Toray Ind. Inc.                                 |  |                |
|                                 | FP15                    | JP 2-117698 A   | 05/02/1990   | Ajinomoto KK and Toray Ind. Inc.                |  |                |
|                                 | FP16                    | EP 0 399 816 A1   | 11/28/1990   | Merck & Co. Inc.                                |  |                |
|                                 | FP17                    | WO 94/11506 A1  | 05/26/1994   | Arch Development Corporation                    |  |                |
|                                 | FP18                    | WO 00/45835 A1  | 08/10/2000   | Human Genome Sciences,<br>Inc. and Rosen et al. |  |                |
|                                 | FP19                    | WO 02/11769 A1  | 02/14/2002   | Human Genome Sciences,<br>Inc. and Coleman      |  |                |
|                                 | FP20                    | WO 02/083704 A1   | 10/24/2002   | Human Genome Sciences,<br>Inc. and Rosen et al. |  |                |

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| (Use as many sheets as necessary) |       |       |         |          | Examiner Name          | Landsman, Robert S.  |  |
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|                       | FP21         | WO 02/083849 A2   | 10/24/2002                     | Human Genome Sciences,<br>Inc. and Rosen et al.    |  |     |
|                       | FP22         | WO 02/083850 A2   | 10/24/2002                     | Human Genome Sciences, Inc. and Rosen et al.       |  |     |
|                       | FP23         | WO 03/097660 A1   | 11/27/2003                     | Human Genome Sciences, Inc. and Rosen et al.       |  |     |
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| Application Number     | 09/219,442           |
|------------------------|----------------------|
| Filing Date            | December 23, 1998    |
| First Named Inventor   | Jing-Shan HU         |
| Art Unit               | 1647                 |
| Examiner Name          | Landsman, Robert S.  |
| Attorney Docket Number | 1488.100000I/HCC/LMB |

|                       |                          | NON PATENT LITERATURE DOCUMENTS  |   |
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| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published | Т |
|                       | NPL49                    | Borg, JP., et al., "Biochemical characterization of two isoforms of FLT4, a VEGF receptor-related tyrosine kinase," <i>Oncogene 10</i> :973-984, Stockton Press (March 1995)   |   |
|                       | NPL50                    | Capogrossi, M.C., "Gene Therapy of Coronary Artery Disease," Project No. Z01 AG00811-01, Abstract (January 1994)   |   |
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|                       | NPL55                    | English language abstract of JP 64-38100 A, cited as document FP14 on Form PTO/SB/08A, Derwent Accession No. 1989-088700/198912  |   |
|                       | NPL56                    | English language abstract of JP 2-117698 A, cited as document FP15 on Form PTO/SB/08A, Derwent Accession No. 1990-181364/199024  |   |
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|                       | NPL58                    | Isner, J.M., et al., "Arterial Gene Therapy for Therapeutic Angiogenesis in Patients With Peripheral Artery Disease," Circulation 91:2687-2692, American Heart Association, Inc. (June 1995)   |   |

| Examiner  | Date       |  |
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<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, OSPIC to process) an application. Confideriumly is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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|                    |                          | NON PATENT LITERATURE DOCUMENTS  |                |
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| Examiner  | <br>Date   |  |
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| INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT |        |        |              | First Named Inventor   | Jing-Shan HU         |  |
|  |        |        |              | Art Unit               | 1647                 |  |
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|                       | NPL69                    | Pajusola, K., et al., "Signalling properties of FLT4, a proteolytically processed receptor tyrosine kinase related to two VEGF receptors," <i>Oncogene 9</i> :3545-3555, Stockton Press Ltd. (December 1994)  |                |
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|                       | NPL73                    | Stacker, S.A. and Achen, M.G., "The Vascular Endothelial Growth Factor Family: Signalling for Vascular Development," <i>Growth Factors 17</i> :1-11, Taylor & Francis (1999)  |                |
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|                       | NPL76                    | Takeshita, S., et al., "Therapeutic Angiogenesis. A Single Intraarterial Bolus of Vascular Endothelial Growth Factor Augments Revascularization in a Rabbit Ischemic Hind Limb Model," J. Clin. Invest. 93:662-670, The American Society for Clinical Investigation, Inc. (February 1994) |                |
|                       | NPL77                    | Walsh, D.A. and Pearson, C.I., "Angiogenesis in the pathogenesis of inflammatory joint and lung diseases," <i>Arthritis Res. 3</i> :147-153, BioMed Central Ltd. (February 2001)  |                |
|                       | NPL78                    | Williams, R.S., "Southwestern Internal Medicine Conference: Prospects for Gene Therapy of Ischemic Heart Disease," <i>Am. J. Med. Sci.</i> 306:129-136, Lippincott Williams & Wilkins (August 1993)   |                |

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| ODSTANDE LICAD   | TI CIIDI   | N 12 B | ATOMICO AT   | Application Number     | 09/219,442           |  |  |
| TWELFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT |            |        |              | Filing Date            | December 23, 1998    |  |  |
|  |            |        |              | First Named Inventor   | Jing-Shan HU         |  |  |
|  |            |        |              | Art Unit               | 1647                 |  |  |
| (Use as many sheets as necessary)                                  |            |        | s necessary) | Examiner Name          | Landsman, Robert S.  |  |  |
| Sheet  | 4          | of     | 4            | Attorney Docket Number | 1488.100000I/HCC/LMB |  |  |

|                       |                          | NON PATENT LITERATURE DOCUMENTS   |                |
|-----------------------|--------------------------|---|----------------|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published | T <sup>2</sup> |
|                       | NPL79                    | Witzenbichler, B., et al., "Vascular Endothelial Growth Factor-C (VEGF-C/VEGF-2) Promotes Angiogenesis in the Setting of Tissue Ischemia," Am. J. Pathol. 153:381-394, American Society for Investigative Pathology, Inc. (August 1998)               |                |
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